

IN THE SPECIFICATION

RECEIVED
FEB 14 2003
TECH CENTER 1600/2900

In the claims:

Please cancel claims 3-16 and 18.

Please amend claims 1, 2, and 17, as follows.

Please consider new claims 19-24.

1. (Amended) A transgenic plant, which plant comprises a recombinant polynucleotide comprising a nucleotide sequence selected from the group consisting of:

- a*
- (a) a nucleotide sequence encoding a polypeptide comprising SEQ ID NO: 2 or the complement thereof;
 - (b) a nucleotide sequence encoding a polypeptide comprising a conservatively substituted variant of the polypeptide of (a);
 - (c) a nucleotide sequence comprising a sequence of SEQ ID NO:1 or the complement thereof;
 - (d) a nucleotide sequence comprising silent substitutions in the nucleotide sequence of one or more of (a) or (c);
 - (e) a nucleotide sequence which hybridizes under stringent conditions to the nucleotide sequence of one or more of: (a), (b), (c), or (d) wherein the stringent conditions comprise wash conditions of 0.2 x SSC to 2.0 x SSC, 0.1% SDS at 50-65° C;
 - (f) a nucleotide sequence comprising 18 consecutive nucleotides of a sequence encoding amino acid residues 35 through 40 of SEQ ID NO:2;
 - (g) a nucleotide sequence comprising any of (a)-(f), which encodes a polypeptide that increases a plant's biomass;
 - (h) a nucleotide sequence having at least 70% sequence identity to the nucleotide sequence of (f);
- and
- (i) a nucleotide sequence which encodes a polypeptide having at least 78% sequence identity to a conserved domain of amino acid residues 33 through 50 of the polypeptide of SEQ ID NO:2.

2. (Amended) The transgenic plant of claim 1, further comprising a constitutive, inducible, or tissue-active promoter operably linked to the nucleotide sequence comprising any of (a)-(i).

a2

17. (Amended) A plant comprising altered expression levels of the recombinant polynucleotide in the transgenic plant of claim 1.

a3

19. (New) A method for producing a plant having increased biomass, the method comprising altering the expression of the recombinant polynucleotide in the transgenic plant of claim 1 or the

expression levels or activity of the polypeptide in the transgenic plant of claim 1 in a plant, thereby producing a modified plant, and selecting the modified plant for increased plant biomass.

20. (New) A method of identifying a factor that is modulated by or interacts with a polypeptide encoded by a recombinant polynucleotide in a transgenic plant, the method comprising:

(a) expressing the polypeptide encoded by the recombinant polynucleotide in the transgenic plant of claim 1; and

(b) identifying at least one factor that is modulated by or interacts with the polypeptide.

21. (New) The method of claim 20, wherein the identifying is performed by detecting binding by the polypeptide to a promoter sequence, or detecting interactions between an additional protein and the polypeptide in a yeast two hybrid system.

22. (New) The method of claim 20, wherein the identifying is performed by detecting expression of a factor by hybridization to a microarray, subtractive hybridization, or differential display.

23. (New) A method of identifying a molecule that changes activity or expression of a polynucleotide or polypeptide of interest in a transgenic plant, the method comprising:

(a) placing the molecule in contact with the transgenic plant of claim 1; and,

(b) monitoring one or more of: (i) expression level of the polynucleotide of interest in the plant;

(ii) expression level of the polypeptide of interest in the plant; (iii) change of an activity of the polypeptide of interest in the plant; or (iv) change of an activity of the polynucleotide of interest in the plant.

24. (New) A plant comprising altered expression levels or the activity of the polypeptide in the transgenic plant of claim 1.